

1 CLAIMS:

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A 3 1. A method for providing transaction services wherein the
4 user of the transaction services interacts with a
5 computer-based transaction machine which has
6 transaction devices, said computer-based transaction
7 machine being controlled by one or more software
8 applications, said computer-based transaction machine
9 having an operating system which controls and receives
10 information from said transaction devices;
11 characterized in that the one or more software
12 applications interact with said transaction devices
13 through a programming interface of middleware software,
14 said middleware software interacting with the operating
15 system, wherein the services provided by the middleware
16 software depend on the capabilities of the transaction
17 devices but the programming interface does not depend
18 on the capabilities of the transaction devices.

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20 2. A method for providing transaction services according
21 to Claim 1 wherein the transaction machine is selected
22 from a group which comprises automatic teller machines,
23 kiosks and electronic point of sale machines.

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25 3. A method for providing transaction services according
26 to any preceding Claim wherein middleware software
27 comprises a series of transaction objects and controls
28 for standard device functions.

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30 4. A method for providing transaction services according
31 to Claim 3 wherein transaction objects are independent
32 of the interface between the user and .../

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1 24. A method for providing transaction services according
2 to any of Claims 19 to 23 wherein use of a web browser
3 allows conventional web sites to be displayed by the
4 computer-based transaction machine.

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6 25. A method for providing transaction services according
7 to Claim 24 wherein middleware software allows or
8 disallows access to particular web sites according to a
9 rule database.

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11 26. A method for providing transaction services according
12 to Claim 24 or Claim 25 wherein middleware software is
13 adapted to customise time-out of the display of
14 individual internet web sites.

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16 27. A method for providing transaction services according
17 to any preceding Claim wherein the computer-based
18 transaction machine is adapted to allow the software
19 applications and middleware to be altered across a
20 network by an authority.

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22 28. A method for providing transaction services according
23 to any preceding Claim wherein the transaction machine
24 can communicate information about their status to a
25 remote monitoring station across a network.

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27 29. A computer-based transaction machine having transaction
28 devices; said computer-based transaction machine being
29 controlled by one or more software applications, said
30 computer-based transaction machine having an operating
31 system which controls and receives information from
32 said transaction devices; characterized in that the one

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1 or more software applications interact with said
2 transaction devices through a programming interface of
3 middleware software, said middleware software
4 interacting with the operating system, wherein the
5 services provided by the middleware software depend on
6 the capabilities of the transaction devices but the
7 programming interface does not depend on the
8 capabilities of the transaction devices.

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10 30. A computer-based transaction machine according to Claim
11 29 wherein the transaction machine is selected from a
12 group which comprises automatic teller machines, kiosks
13 and electronic point of sale machines.

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15 31. A computer-based transaction machine according to Claim
16 29 or Claim 30 wherein middleware software comprises a
17 series of transaction objects and controls for standard
18 device functions.

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20 32. A computer-based transaction machine according to Claim
21 31 wherein transaction objects are independent of the
22 interface between the user and the transaction machine;
23 the interface between the user and the transaction
24 machine being customisable.

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26 33. A computer-based transaction machine according to Claim
27 31 or Claim 32 wherein controls implement a
28 capabilities interface.

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